

# Ashwin K. Aggarwal

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## EDUCATION

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**University of California, Berkeley**, B.A. Computer Science Class of 2022, GPA: 3.7  
Coursework: Data Structures & Algorithms, Computer Architecture, Discrete, Efficient Algorithms, Machine Learning

## WORK EXPERIENCE

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**Salesforce**, Software Engineering Intern **May 2021 - Aug 2021**

- Developed regression based anomaly detection algorithms to monitor Marketing Cloud release performance
- Created a Python package to read in Splunk data, gauge release health, & generate reports for stakeholders
- Modified an auto-regressive forecasting algorithm to account for weekly seasonalities and MC release dates

**CodeHS**, Software Engineering Intern **Jun 2020 - Nov 2020**

- Built an Ajax UI image upload component, optimizing the integration of upload functionality across the site
- Recreated dashboards to view students' performance on quizzes using a newer quiz object model
- Drove production of allowing students to retake quizzes, giving teachers more flexibility with assignments

**The University of Chicago, CS Department**, Data Science Intern **May 2019 - Aug 2019**

- Ran analysis on AWS EC2 price history using time series visualization, regression, and residual plots
- Made a model for availability, the probability of buying a spot instance for less than declared price
- Concluded that a linear model best fit the plot of availability vs. declared price with an R-value of 0.98
- Determined from a non-random residual plot scatter that AWS generates EC2 instance prices randomly

**The University of Chicago, CS Department**, Software Engineering Intern **May 2018 - Aug 2018**

- Researched ensembling methods for machine learning classification algorithms with material science data
- Analyzed large material science datasets (~230k entries) in Python with scikit-learn, numpy & pandas
- Created software to determine chemical properties of compounds without expending lab resources

## PROJECTS

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**Mobile Developers of Berkeley**, Software Engineer **Jan 2019 - Present**

- Built 6 deployment-ready android applications as part of the 6 week intense training program
- Led development of Bear Travel, an app that connects Uber, Lyft, and public transit riders to save travel costs
- Prepared market sizing, app wireframes, market validation, and potential business model presentation

### Bridge

- Received an honorable mention (4th overall) at Facebook's Global Hackathon 2018
- A non-invasive depression identification system to reduce the incidence of self-harm activities
- Performs sentiment analysis on a user's Facebook posts using IBM's sentiment analysis kit
- Analyzes smartwatch data like heart rate variability from HealthKit to detect abnormal sadness levels

### CoinTK

- Awarded Facebook's Favorite Hack at HackIllinois 2017 (UIUC)
- An open source program on pip for users to backtest their bitcoin prediction algorithms
- Co-developed an iOS application and web server to visualize the backtesting results with plotly

## LANGUAGES & SKILLS

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Python, Java, Swift, SQL, C, JavaScript; django, ajax, pandas, sk-learn, numpy, boto, plotly, requests, nltk, gensim